REMARKS

Claim Rejection under 35 U.S.C. § 102

Claims 1, 4, 5, 20-22, 25, 26, 42, 43, and 45-48 were rejected under 35 U.S.C. § 102(b), as being anticipated by Caswell (U.S. Pat. No. 4,137,873). The claims of the present invention all include a limitation drawn to a combustion chamber being defined intersecting a crown of the piston. The piston of Caswell does not include a crown as depicted in fig. 1 of the present application. As noted in Caswell, "A head portion is joined only to the side walls of the base portion. The head portion includes a flexible to wall adjacent the combustion chamber of the engine. The flexible top wall is resiliently in response to pressure within the combustion chamber..." The entire flexible top wall of the Caswell piston comprises the combustion chamber as defined in the piston and it spans the full circumferential dimension of the piston to present an edge margin that extends to the side walls of the piston. Because the combustion chamber extends to the side walls of the piston, there is therefore no crown on the Casewell piston. In view of this, it is requested that the rejection be withdrawn.

Claim Rejection under 35 U.S.C. § 103

Claims 1-52 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Komiyama, et al. (U.S. Pat. No. 4,164,913) in view of Dunn, et al. (U.S. Pat. No. 4,140,096). The original independent claims of the present application described the combustion chamber as being defined by a concave surface and three convex surfaces. Implicitly, such a description precludes the use of flat surfaces. To make this distinction more clear, the claims have been amended to make the implicit limitation express.

In distinction, Komiyama includes as an integral part of the Komiyama combustion chamber an upper quadrilateral cavity. This four sided cavity is best depicted in Fig. 2, where its four flat sides are evident. Likewise, Dunn, although there is a paucity of description of the shape of the combustion chamber, clearly includes a flat bottom portion of the combustion chamber, as depicted in Fig. 1. Both Komiyama and Dunn employ flat surfaces as integral component of their respective combustion chambers. There is no teaching, suggestion, or structure in either Komiyama or Dunn for eliminating the flat surfaces from their respective combustion chambers. In view of this, it is requested that the rejection be withdrawn.

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CONCLUSION

Claims 1-52 are pending. By this Amendment, claims 1, 21, and 43 are amended, claims 21, 42, and 47 are cancelled, and no new claims are added.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,

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